



United States  
Environmental Protection  
Agency

Office of Public Affairs  
Region 5  
77 West Jackson Boulevard  
Chicago, Illinois 60604

Illinois, Indiana,  
Michigan, Minnesota,  
Ohio, Wisconsin

# Welcome

## You are invited to a U.S. EPA Availability Session

### Cleanup Work Set to Begin at the Douglas Road Superfund Site, Mishawaka, Indiana

#### Availability Sessions

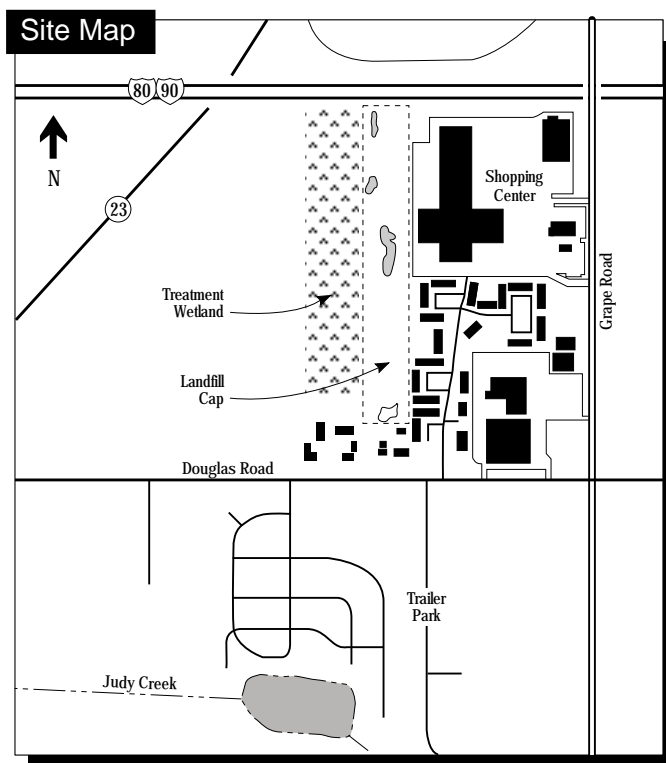
The public is invited to attend two availability sessions to talk to U.S. EPA representatives about upcoming work at the Douglas Road Superfund Site.

Date: January 19, 1999

First Session: 1:00 p.m. to 3:00 p.m.

Second Session: 5:00 p.m. to 8:00 p.m.

Location: Mishawaka City Hall  
Council Chambers  
600 E. Third Street  
Mishawaka, IN



#### Introduction

The United States Environmental Protection Agency (U.S. EPA) is set to begin cleanup work in February at the Douglas Road Superfund Site in Mishawaka, Indiana. The cleanup work has two primary components:

- construction of a landfill cap over the 16-acre landfill at the site; and
- construction of a wetland at the site to treat contaminated ground water pumped from beneath the site.

The site map indicates the location of the scheduled construction work.

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A description of the upcoming work is provided on pages 2-3. The January 19th availability sessions will provide an opportunity for the public to ask questions about the upcoming cleanup work and for U.S. EPA to describe the work in detail.

## **Site Description and History**

The Douglas Road Superfund Site is located near the northwest corner of Douglas and Grape Roads in Mishawaka, Indiana. The 16-acre site is bounded by the Indiana State Toll Road to the north, a shopping center and an apartment complex to the east, residential properties and Douglas Road to the south, and agricultural properties to the west. From 1954 to 1979, Uniroyal Plastics, Inc., used the site as a repository for wastes, including solvents, fly ash, paper, wood stock, rubber and plastic scrap.

According to information provided by Uniroyal, about 302,400 gallons of RCRA hazardous waste were disposed of at the landfill. Liquid wastes included methyl ethyl ketone, acetone, tetrahydrofuran, toluene, hexane, and xylene.

Remedial Investigation (RI) sampling was conducted on- and off-site in 1994. Results of sampling indicates that the landfill surface soils are contaminated with volatile and semi-volatile organic pesticides, dioxins, and metals at levels which pose unacceptable risks to human health and the environment. The RI sampling also determined that contaminated ground water had moved off-site, where exposure posed a potential threat to human health (through ingestion) and the environment. Ground water has been found to be contaminated with volatile and semi-volatile organic compounds.

Based on the results of the RI and risk assessment, U.S. EPA conducted a Focused Feasibility Study (FFS) to address landfill capping options. U.S. EPA also conducted a Feasibility Study (FS) to address contaminated ground water at the site. The purpose of the FS and FFS was to develop and evaluate alternatives to prevent contact with soil and contaminated ground water, both on- and off-site.

Copies of the RI, the FFS, and the FS for the Douglas Road Superfund Site can be found in the Mishawaka Public Library (see page 3).

Based on the FFS and public comments, U.S. EPA selected a landfill cleanup plan which called for a composite barrier cap. A Record of Decision which formally adopted this plan was signed on July 13, 1995. Based on the FS and public comments, U.S. EPA selected a ground-water cleanup plan which called for ground-water extraction and treatment in a constructed wetland. A Record of Decision which formally adopted this plan was signed on May 3, 1996. The upcoming construction work described below will implement the two Records of Decision.

This action is the second and final phase of the Douglas Road Superfund Site cleanup. The first phase, which was completed in 1996, was the extension of city water to 97 homes that were impacted by the site or have the potential to be impacted by the site in the future.

## **Description of Upcoming Construction Work**

### **Landfill**

As mentioned above, a landfill cap will be constructed over the 14-acre landfill at the site. The landfill cap will consist of a composite barrier cap with a geosynthetic clay liner. The typical cross section for this composite barrier cap consists of (from top to bottom) a topsoil layer, a protective soil layer, an aggregate (gravel) or sand drainage layer with a permeability of 0.01 centimeters per second, a flexible membrane liner, a geosynthetic clay liner soil barrier layer having a maximum permeability of  $1 \times 10^{-8}$  centimeters per second, and a bedding layer. The landfill cap will prevent precipitation from entering the top of the landfill. Currently, precipitation filters through the landfill and carries contaminants out of the landfill into the ground water beneath the site.

Existing surface vegetation currently on the landfill will be cleared off in February and March. The landfill cap construction is planned to begin in June and is expected to be completed in September, weather permitting.

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## Wetland

A 16-acre treatment wetland will be constructed west of the landfill to help remove contaminants from ground water beneath the site. Ground water impacted by the site will be pumped into the wetland. Bacteria in the wetland vegetation will degrade the organic and inorganic contaminants in the ground water into less harmful by-products. After treatment is complete, the majority of ground water will be allowed to infiltrate back into the aquifer with a small portion being discharged to Judy Creek.

The area where the wetland is to be built will be cleared in February and March. Wetland vegetation will be planted in May and June. Several months will be allowed for the vegetation to establish itself before the wetland is considered completed.

## Ground-water Extraction System

The ground-water extraction system will consist of five ground-water extraction wells. Installation of the extraction wells will start in March and should be completed by May. Ground-water extraction will not begin until the treatment wetland is operational.

## What's Next

Final design of the landfill cap and treatment wetland is being completed. Construction contracts will be awarded in February and work is scheduled to begin shortly thereafter and continue throughout most of 1999. After the landfill cap and treatment wetland are operational, they will be monitored to ensure they are operating as planned. Regular monitoring will occur for a minimum of 30 years.

### For Additional Information

An information repository for the Douglas Road site is located at the Mishawaka Public Library, 209 Lincoln Way, Mishawaka. The information repository contains technical reports related to the Douglas Road site and information about the Superfund program. To obtain additional information about the Douglas Road site, please contact:

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**Douglas Road Superfund Site Update**